COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.:	VA0020699
Effective Date:	December 15, 2008
Modification Date:	
Expiration Date:	December 14, 2013

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA POLLUTION DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth herein.

Owner:	Virginia Department of Corrections
Facility Name:	Powhatan Correctional Center WWTP
City:	N/A
County:	Powhatan County
Facility Location:	State Route 711 in Powhatan County

The owner is authorized to discharge to the following receiving stream:

	Outfall 001
Name:	James River, UT
Basin:	James River (Middle)
Subbasin:	N/A
Section:	10a
Class:	III
Special Standards:	PWS

_____

Water Permit Manager, Piedmont Regional Office

_____

Date

A. Limitations and Monitoring Requirements

1. During the period beginning with the permit's modification date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 001.

   a. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD) (1)	NL	NA	NA	NL	Continuous	Totalizing, Indicating & Recording
pH (standard units)	NA	NA	6.0	9.0	1/Day	Grab
BOD_5	30 mg/L (1) 53 kg/d	45 mg/L 79 kg/d	NA	NA	1/ Week	8 HC
Total Suspended Solids (TSS)	30 mg/L (1) 53 kg/d	45 mg/L 79 kg/d	NA	NA	1/ Month	8 HC
Ammonia as N	2.3 mg/L	2.3 mg/L	NA	NA	1/ Week	8 HC
Dissolved Oxygen	NA	NA	6.0 mg/L	NA	1/Day	Grab
E.coli	126 N/ 100 mL Geometric Mean	NA	NA	NA	3 Days/ Week	Grab (Between 10 am to 4 pm)

"NL" means no limitation is established. Monitoring and reporting, however, are required. "NA" means not applicable.

(1) These limitations are expressed in two (2) significant figures.

   b. The design flow of this treatment facility is 0.465 MGD. See Part I.C.1 for additional flow requirements.

   c. There shall be no discharge of floating solids or visible foam in other than trace amounts.

   d. Effluent samples shall be collected post-aeration.

   e. At least 85% removal for BOD_5 and TSS must be attained for this effluent.

   f. See Part I.C.7 for quantification levels.

   g. See Part I.B for alternative disinfection requirements.

   h. In addition to any Total Nitrogen or Total Phosphorus concentration limits (or monitoring requirements without associated limits) listed above, this facility has Total Nitrogen and Total Phosphorus calendar year load limits associated with this outfall included in the current Registration List under registration number VAN040077, enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Dischargers and Nutrient Trading in the Chesapeake Watershed in Virginia.

2. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to manage sewage sludge according to the approved Sludge Management Plan.

   The pollutants in the sewage sludge shall be limited and monitored by the permittee as specified below (Outfall S01):

   a. Annual Sludge Production Data: Report annual total amount of sludge produced, in dry metric tons, by the facilities covered in the Sludge Management Plan and the annual amount of sludge, in dry metric tons, used or disposed in various manners.

   b. Chemical Pollutant Limitations

SLUDGE CHARACTERISTICS	LIMITATIONS		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE * (mg/kg)	CEILING CONCENTRATION * MAXIMUM (mg/kg)	FREQUENCY	SAMPLE TYPE
Percent Solids	NL	NA	1/3 Months	Composite (1)
Total Arsenic	41	75	1/3 Months	Composite (1)
Total Cadmium	39	85	1/3 Months	Composite (1)
Total Copper	1,500	4,300	1/3 Months	Composite (1)
Total Lead	300	840	1/3 Months	Composite (1)
Total Mercury	17	57	1/3 Months	Composite (1)
Total Molybdenum	NA	75	1/3 Months	Composite (1)
Total Nickel	420	420	1/3 Months	Composite (1)
Total Selenium	100	100	1/3 Months	Composite (1)
Total Zinc	2,800	7,500	1/3 Months	Composite (1)

NL = No Limitation, monitoring only NA = Not Applicable * Dry Weight Basis
"1/3 Month" means one sample taken per three calendar months
(1) Composite samples must be representative of the mixture of sludges generated by and brought to the DOC Powhatan facility. To ensure adequate characterization, a composite sample shall consist of a minimum of fifteen discrete grab samples.

c. Pathogen Reduction Limitations: The permittee shall comply with one of the applicable pathogen reduction alternatives specified in 9 VAC 25-31-710.D, listed below:

(1) Aerobic digestion. Sewage sludge is agitated with air or oxygen to maintain aerobic conditions for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 40 days at 20°C and 60 days at 15°C.

(2) Air drying. Sewage sludge is dried on sand beds or on paved or unpaved basins. The sewage sludge dries for a minimum of three months. During two of the three months, the ambient average daily temperature is above 0°C.

(3) Anaerobic digestion. Sewage sludge is treated in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35°C to 55°C and 60 days at 20°C.

(4) Composting. Using either the within-vessel, static aerated pile, or windrow composting methods, the temperature of the sewage sludge is raised to 40°C or higher and remains at 40°C or higher for five days. For four hours during the five days, the temperature in the compost pile exceeds 55°C.

(5) Lime stabilization. Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 after two hours of contact.

d. Vector Attraction Reduction Limitations: The permittee shall comply with one of the applicable vector attraction reduction alternatives specified in 9 VAC 25-31-720.B, listed below:

(1) The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%, calculated according to the method in 9VAC25-31-490 B 8.

(2) When the 38% volatile solids reduction requirement in subdivision 1 of this subsection cannot be met for an anaerobically digested sewage sludge, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30°C and 37°C. When at the end of the 40 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 17%, vector attraction reduction is achieved.

(3) When the 38% volatile solids reduction requirement in subdivision 1 of this section cannot be met for an aerobically digested sewage sludge, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent solids of 2.0% or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

(4) The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20°C.

(5) Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40°C and the average temperature of the sewage sludge shall be higher than 45°C.

(6) The pH of sewage sludge shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours.

(7) The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials.

(8) The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials.

(9) (a) Sewage sludge shall be injected below the surface of the land.
(b) No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

(10) (a) Sewage sludge applied to the land surface or placed on an active sewage sludge unit shall be incorporated into the soil within six hours after application to or placement on the land, unless otherwise specified by the board.

(b) When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

(11) Sewage sludge placed on an active sewage sludge unit shall be covered with soil or other material at the end of each operating day.

(12)The pH of domestic septage shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for 30 minutes.

e. See Parts I.D and E for record keeping and reporting requirements.

f. See Part I.F for additional land application monitoring requirements.

g. All samples shall be collected and analyzed in accordance with the approved O&M Manual and Sludge Management Plan.

h. Sampling shall be conducted at approximately equal intervals at the listed frequencies. Sample events shall be scheduled to coincide with application periods.

i. Samples shall be collected so as to provide a representative composition of the sludge.

B. Additional Limitations and Monitoring Requirements

Total Residual Chlorine (TRC) Effluent Limitations and Monitoring Requirements: If chlorination is chosen as a disinfection method, TRC (DMR # 005) shall be limited and monitored by the permittee, and reported on the monthly DMR, as specified below:

1. Effluent TRC shall be monitored, following dechlorination, once per day by grab sample and limited as specified below:

	Monthly Average	Weekly Average
TRC	0.064 mg/L	0.072 mg/L

2. TRC shall be monitored at the outlet of the chlorine contact tank, prior to dechlorination, three times per day at 4 hour intervals by grab sample.
3. No more than 9 of all samples taken at the outlet of the chlorine contact tank shall be less than 1.5 mg/L for any one calendar month (DMR # 157).
3. No TRC sample collected at the outlet of the chlorine contact tank, prior to dechlorination, shall be less than 0.60 mg/L (DMR # 213).

The above requirements, if applicable, shall be applied in addition to the E.coli requirements delineated in Part I.A.

C. Other Requirements or Special Conditions

1. A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the DEQ, Piedmont Regional Office when the monthly average flow influent to the sewage treatment works reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period**.** The written notice shall be submitted within 30 days and the plan of action shall be received at the Piedmont Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of the permit.

2. The permittee shall review the existing Operations and Maintenance (O & M) Manual and notify the DEQ Regional Office, in writing within 90 days of the effective date of this permit whether it is still accurate and complete. If the O & M Manual is no longer accurate and complete, a revised O & M Manual shall be submitted for approval to the DEQ Regional Office within 90 days of the effective date of this permit. The permittee will maintain an accurate, approved operation and maintenance manual for the treatment works. This manual shall include, but no necessarily be limited to, the following items, as appropriate:

   a. Techniques to be employed in the collection, preservation, and analysis of effluent and sludge samples;

   b. Procedures for measuring and recording the duration and volume of treated wastewater discharged;

   c. Discussion of Best Management Practices, if applicable;

   d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.C.8 that will prevent these materials from reaching state waters;

   e. Treatment works design, treatment works operation, routine preventative maintenance of units within the treatment works, critical spare parts inventory and record keeping; and

   f. A plan for the management and/or disposal of waste solids and residues.

   Any changes in the practices and procedures followed by the permittee shall be documented and submitted for staff approval within 90 days of the effective date of the changes. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the O & M Manual

shall be deemed a violation of the permit.

3. The permittee shall employ or contract at least one Class III licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

4. The permitted treatment works shall meet Reliability Class II.

5. The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for Department of Environmental Quality approval 90 days prior to the effective date of the changes. Upon approval, the SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

6. The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

7. Compliance Reporting

a. Maximum quantification levels (QL's) shall be as follows:

Effluent Characteristic	Quantification Level
BOD_5	5 mg/L
TSS	1 mg/L
Ammonia	0.20 mg/L
TRC	0.10 mg/L

b. Reporting

Monthly Average –Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in a. above shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL listed in a. above shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data and flow data for each sample day to determine the daily quantity and report the average of the calculated daily quantities.

Weekly Average – Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in a. above shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL listed in a. above shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data and flow data for each sample day to determine the daily quantity and report the average of the calculated daily quantities.

c. Any single datum required shall be reported as "<QL" if it is less than the QL in section a., above. Otherwise the numerical value shall be reported.

d. The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used (i.e. 5 always rounding up or to the nearest even number) by the permittee, the permittee shall use the convention consistently and shall ensure that consulting laboratories employed by the permittee use the same convention.

8. Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

9. This permit may be modified or, alternatively, revoked and reissued:
   a. If any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements;
   b. To incorporate technology-based effluent concentration limitations for nutrients in conjunction with the installation of nutrient control technology, whether by new construction, expansion or upgrade, or
   c. To incorporate alternative nutrient limitations and/or monitoring requirements, should:
      (1) the State Water Control Board adopt new nutrient standards for the water body receiving the discharge, including the Chesapeake Bay or its tributaries, or
      (2) a future water quality regulation or statute require new or alternative nutrient control.

10. The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VAC 25-790), obtain a Certificate to Construct (CTC), and a Certificate to Operate (CTO) from the DEQ prior to constructing wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit. Upon issuance of a CTC, DEQ staff shall initiate modification, or alternatively, revocation and reissuance, of this permit, to include annual concentration limits based on the nutrient removal technology listed in the CTC. Upon issuance of a CTO, any nutrient removal facilities installed shall be operated to achieve design effluent Total Nitrogen and Total Phosphorus concentrations.

11. If the facility permitted herein is issued a Notice of Violation for any of the parameters listed below, then all of the following effluent monitoring frequencies shall become effective upon written notice from DEQ and remain in effect until permit expiration.

BOD_5	3 Days/ Week
Ammonia	3 Days/ Week

No other effluent limitations or monitoring requirements are affected by this special condition.

D. Record Keeping Special Conditions for Land Application of Sewage Sludge

The permittee is required to retain the following information for at least 5 years:

1. The concentrations of each pollutant in Part I.A.2; Records shall be maintained for all samples to include the following: (i) the date and time of sampling, (ii) the sampling methods used, (iii) the date analyses were performed, (iv) the identity of the individual obtaining each sample and the analysts, and (v) the results of all required analyses and measurements. The records shall include all data and calculations used.
2. A description of how the pathogen reduction requirements in Part I.A.2.c. are met;
3. A description of how the vector attraction reduction requirements in Part I.A.2.d. are met;

4. A description of how the management practices, specified in the approved Sludge Management Plan and/or this permit, are met;

5. A description of how the site restrictions specified in the approved Sludge Management Plan and/or this permit, are met;

6. The following certification statement:
"I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in 9 VAC 25-31-710 B, vector attraction reduction requirements in **[permittee shall insert one of the vector attraction reduction requirements in 9 VAC 25-31-720 B.1 through B.10]**, the management practices in 9 VAC 25-31-550, and the site restrictions in 9 VAC 25-31-710 B 5 was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment".

E. Reporting Requirements for Land Application of Sewage Sludge

The permittee shall provide the results of all monitoring performed in accordance with Parts I.A.2 and I.D and information on management practices, land application sites, site restrictions (if applicable), and appropriate certifications not later than February 19 of each year to the regional office of the Department of Environmental Quality. Each report is for the previous calendar year's activity. If no sewage sludge was applied to the land during the reporting period, "no sewage sludge was applied" shall be reported. Part I.F.7 shall supersede this special condition when the subparts of that section are applicable.

F. Additional Requirements for Land Application of Sewage Sludge

The requirements specified in Part I.F of this permit are applicable only when the application of biosolids authorized by the SMP to be stored and land applied by the DOC Powhatan facility are not addressed by a separate permit held by a third party contractor.

1. The pollutants in sewage sludge stored and land applied at the Powhatan Correctional Center (Outfall S02) shall be monitored by the permittee as specified below:

   a. Annual Sludge Production Data: Report annual total amount of sludge stored, in dry metric tons, by the Powhatan facility and the annual amount of sludge, in dry metric tons, used or disposed in various manners.

   b. Chemical Pollutant Limitations:

SLUDGE CHARACTERISTICS	LIMITATIONS * (mg/kg)	MONITORING REQUIREMENTS	
		FREQUENCY	SAMPLE TYPE
TKN (mg/kg)	NL	1/3 Months	Composite
Ammonia Nitrogen (mg/kg)	NL	1/3 Months	Composite
Nitrate Nitrogen (mg/kg)	NL	1/3 Months	Composite
Total P (mg/kg)	NL	1/3 Months	Composite
Total K (mg/kg)	NL	1/3 Months	Composite
Alkalinity as $CaCO_3$ (%)**	NL	1/3 Months	Composite
pH (SU at 25 C)	NL	1/3 Months	Composite
PAN (lbs/DT)	NL	1/3 Months	Calculated

* Dry Weight Basis

** Lime treated sludge (10% or more $CaCO_3$ by dry weight) should be analyzed for percent Calcium Carbonate Equivalence (CCE).

NL = No Limitation, monitoring only

c. All samples shall be collected and analyzed in accordance with the approved O & M Manual and Sludge Management Plan.

d. Sampling shall be conducted at approximately equal intervals at the listed frequencies. Sample events shall be scheduled to coincide with application periods.

e. Samples shall be collected so as to provide a representative composition of the sludge.

2. Soil Monitoring Requirements

a. The pollutants in soil shall be monitored by the permittee as specified below:

SLUDGE CHARACTERISTICS	MONITORING REQUIREMENTS	
	FREQUENCY	SAMPLE TYPE
Soil pH (SU)	1/Application	Composite
Cation Exchange Capacity (meq/100 g)	1/Application	Composite
Available Phosphorus (mg/kg)	1/Application	Composite
Exchangeable Potassium (mg/kg)	1/Application	Composite
Exchangeable Magnesium (mg/kg)	1/Application	Composite

b. Soil samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: All land application sites before sludge is reapplied.

c. Soil composite samples shall be representative of the soil types delineated by the NRCS Soil Survey (or the equivalent). Samples shall be taken at 0 – 6 inches soil depth for each land application site.

d. Unless otherwise stated, all parameters are to be reported on a dry weight basis.

e. All samples shall be collected and analyzed in accordance with the approved O & M Manual and Sludge Management Plan.

f. Samples shall be collected so as to provide a representative composition of the sludge.

3. The permittee shall develop a Nutrient Management Plan (NMP) for each land application site and submit the NMP to the DEQ Piedmont Regional Office for review at least 30 days prior to land application on the site. Copies of the NMP shall be provided to the farmer/operator of the site, the Department of Conservation and Recreation regional office and the chief executive officer or designee for the local government, unless they request in writing not to receive the NMP. The NMP shall be enforceable through this permit.

The nutrient management plan shall be prepared and revised by a certified nutrient management planner as stipulated in regulations promulgated pursuant to §10.1-104.2 of the Code of Virginia. Supplemental commercial fertilizer or manure applications shall be coordinated with the biosolids applications such that the total nutrient application rates are not exceeded as identified in the nutrient management plan.

Where land application of biosolids is to be performed more frequently than once every three years at greater than 50% of the annual agronomic rate; or where the owner or lessee of the land application site is the operator of a confined animal feeding operation in accordance with §62.1-44.17:1 of the Code of Virginia; or where site-specific conditions demonstrate an increased risk to state waters as determined by DEQ, the permittee shall submit an NMP that has been approved by the Virginia Department of Conservation and Recreation (DCR) with a copy

of the approval letter at the time of any permit modification requests to DEQ.

4. The permittee shall provide written notification to the DEQ Piedmont Regional Office at least 14 days prior to commencing land application of biosolids at each permitted site. The notice shall contain the following information:
   a. permitted site identification,
   b. permitted site location, to include:
      (1) county
      (2) route number/road name
      (3) latitude/longitude coordinates in decimal degrees that represent a location within the boundaries of the site
   c. approximate dates of application, and
   d. expected sources of biosolids.

5. At least 48 hours prior to the delivery of biosolids to each land application site, the permittee shall post a sign at the site notifying the public that biosolids will be applied. The sign shall be maintained at the site during the application and for at least 48 hours after the biosolids application has been completed.
   a. The sign shall be visible and legible from the public road adjacent to the field, or the intersection of the public road and the main access road or driveway to the site. Upon the request of the permittee, the department may grant a waiver to this or any other signage requirement, or require alternative posting options due to extenuating circumstances.
   b. The sign shall be weather-resistant and sturdy enough to remain in place and legible throughout the period that the sign is required at the site. The sign shall be at least four square feet in area and shall only contain the following information:
      (1) A statement that biosolids are being land-applied at the site;
      (2) The name and telephone number of the permit holder;
      (3) The name or title, and telephone number of an individual designated by the permit holder to respond to complaints and inquiries;
      (4) Contact information for the Virginia Department of Environmental Quality Piedmont Regional Office, including a telephone number for complaints and inquiries.

6. The permittee shall submit, either via postal service (postmark) or electronically, a monthly activity report to the DEQ Piedmont Regional Office and DEQ Office of Land Application by the 15th day of the month, for land application activities that occurred in the previous calendar month.

   The monthly activity report shall include the following information:
   a. Name of Permittee, DEQ permit number and dates of activity.
   b. Name and certificate number of the certified land applicators with a signed statement attesting that they were onsite at the times of the reported applications and that those applications were in compliance with the permit.
   c. Identification of land application site, including the county where taxes are remitted and permitted site identification name, letters and numbers, as appropriate.
   d. The source of biosolids and approximate field area (reported to the nearest 0.1 acres) receiving those biosolids.
   e. The amount of biosolids applied in dry tons and the method and calculations used to determine the reported value. Dry ton value shall be reported to the nearest 0.01 dry tons.
   f. Dates and type of any interactions with local monitors and names of individuals involved in the interactions.

g. Name of responsible representative of permittee and a statement signed and dated by that representative indicating that the information submitted has been verified by that representative as correctly reported in accordance with the Part II. K.

h. Presentation of the calculation of the total fee.

i. A summary list of the total amount of biosolids applied and the calculated fee broken down by County, presented in alphabetical order by county.

Complete records of land application activities, including amount of biosolids land applied, shall be maintained for five years after the application, in a form that is available for inspection by the Department. The requirements of this special condition shall supersede the annual reporting requirements of Part I.E.

7. The permittee shall remit to the DEQ a fee of $7.50 per dry ton of biosolids applied in the Commonwealth of Virginia.
   a. The permittee shall submit a monthly activity report to DEQ by the 15th day of the month for the land application activities of the previous month, in accordance with Part I.F.6. Upon reviewing the report, DEQ will notify the Permittee of the fee that is due and set a due date. Failure to submit payment within 60 days of notification by DEQ of the fee due may result in the permit being revoked or approved sources being reclassified as unapproved.

   b. Alternatively, the permittee may submit the payment with the monthly activity report, based on the calculation in Part I.F.6.

   c. The check or money order shall be payable to the "Treasurer of Virginia", and mailed with invoice to
      Department of Environmental Quality
      Receipts Control
      P.O. Box 1104
      Richmond, VA 23218

8. The permittee shall ensure that no land application activities occur unless a certified land applicator (as specified in Article 5 of the VPA Permit Regulation 9VAC25-32 Section 690 through 760) is onsite at all times during such land application. Certified land applicators may be considered to be onsite if they are at the site permitted for land application and, if it is necessary to leave the site, they are available within 30 minutes to return to the site to verify and ensure that land application of biosolids is in compliance with the permit.

9. Sewage sludge shall not be applied to the land if it is likely to adversely affect a threatened or endangered species listed under Virginia Water Quality Standards Regulation (9 VAC 25-260-00 et seq.) or Section 4 of the Endangered Species Act or if the land application is likely to adversely affect its designated critical habitat.

10. Application of sludge shall be on an infrequent (once per three year) basis. None of the sites listed in the Sludge Management Plan which previously received a complete application of sludge shall be used again until at least three years after the date of the last application. For the purposes of this special condition, a complete sludge application shall be defined as the sum of all sludge applications made within a 12 month period, regardless of whether or not the target level of nutrient addition was achieved. Updated soil sampling test results, in accordance with Part I A, shall be submitted before sludge is reapplied to any field.

11. At no time shall liquid sludge be surface applied at a hydraulic loading rate greater than 14,000 gal/ac (0.5 inch depth) in a single application procedure. Sufficient drying time shall be allowed between subsequent applications.

12. Operational limitations during periods of inclement weather.
   a. Sludge shall not be applied during times when the ground is saturated.

   b. Surface application of sludge shall not be made to cultivated or bare ground covered with ice. However, sludge may be applied to snow covered ground if snow cover does not exceed an average depth of one inch

and the snow and sludge are incorporated within 24 hours of application.

c. Sludge may be applied to frozen ground only under the following conditions:
   (1) solids content of the sludge is greater than 15%,
   (2) slopes are not greater than 5%,
   (3) a minimum of a 200 foot vegetative (or at least 60% uniformly covered by stalks or other vegetation) buffer is maintained from all surface water courses,
   (4) only those soils characterized by the USDA as "well drained" are utilized,
   (5) stalks, vines, stubble or other vegetation or crop residue provides uniform soil coverage of at least 60% and is sufficient to prevent surface runoff.

13. Sludge shall not be applied to sites where slopes exceed 15%.
   a. During the period of November 16 to March 15 of the following year, when sludge is applied to site slopes between 7% and 15%, one of the following best management practices shall be used to prevent runoff and soil loss:
      (1) Sludge is surfaced applied or subsurface injected beneath an established living crop such as hay, pasture, or timely planted small grain or cover crop;
      (2) Sludge is surfaced applied or subsurface injected so that immediately after application the crop residue still provides at least 60% soil surface coverage; or
      (3) Sludge is applied by surface application or subsurface injection and the site is operated in compliance with an existing soil conservation plan approved by the USDA Natural Resource Conservation Service and will remain in compliance after any subsequent tillage operation to incorporate the sludge.

   b. During the period of November 16 to March 15 of the following year, if site slopes are between 5% and 7%, sludge can be applied by surface application or subsurface injection followed by:
      (1) Incorporation within 48 hours of application if crop residue still provides at least 30% soil surface coverage immediately following incorporation; or
      (2) Ridge tilling or chisel plowing within 48 hours of application.

14. Land application of sewage sludge shall not occur within the following minimum buffer zones:

Adjacent Features	Minimum Distance (feet) to Land Application Area		
	Surface Application(1)	Incorporation	Winter(2)
Occupied dwellings	200	200	200
Water supply wells and springs	100	100	100
Property lines	100	50	100
Perennial streams and other surface waters except intermittent streams	50	35	100
Intermittent streams/drainage ditches	25	25	50
All improved roadways	10	5	10
Rock outcrops and sinkholes	25	25	25
Agricultural drainage ditches with slopes equal to or less than 2.0%	10	5	10

(1) Not plowed or disked to incorporate within 48 hours.
(2) If surface application occurs on average site slope greater than 7% during the time between November 16 of one year and March 15 of the following year

15. All vehicles that transport sludge shall be sufficiently sealed to prevent leaking and spillage of sludge. Totally

closed, water tight transport vehicles with rigid tops shall be provided for liquid sludge to prevent spillage.

16. Soil pH results at the time of application shall not be over 1 year old.

17. Sludge with a calcium carbonate ($CaCO_3$) equivalency of 20% or greater shall not be applied to fields which exhibit a soil pH of 6.8 or greater. The same sludge may be applied to fields which exhibit a soil pH less than 6.8 in accordance with the calculated rate derived from the following table:

Initial Soil pH	Soil Type	
	Coarse Texture	Fine Texture
	Lime ($CaCO_3$) Tons/Acre	
4.8	4.25	5.75
5.0	4.0	5.25
5.5	3.0	4.0
6.0	2.0	2.75
6.5	1.25	1.5

The calculated rate and the actual application rate shall be recorded and maintained on site. Coarse texture soils include those surface soils designated by USDA-NRCS as sandy loam or lighter in texture; Fine texture soils include those classified as having textures heavier than sandy loam.

18. The application of sludge together with any other source of PAN shall not exceed the agronomic loading rate for the crops grown on each site. The sludge application rates shall be calculated for each field based upon the PAN and productivity class table provided in Attachment A-1, Table I and Attachment A-2, Table II. PAN calculations shall be made using the results from at least the last 12 month's sludge samples. Legume nitrogen credits shall be made for sites where legumes have been grown the previous year in accordance with Attachment A-3, Table III. Records of the actual sludge application rates shall be retained on site for inspection.

19. The rate of application of sludge shall never exceed 15.0 dry tons per acre per three years.

20. The yield goals posted in Attachment A-2, Table II shall reasonably correspond to site specific yield goals. If the site specific yield goal is lower than the yield listed in Attachment A-2, Table II, the amount of sludge applied shall be reduced proportionately. In order to justify higher sludge application rates due to higher yield goals than those in Attachment A-2, Table II, the permittee shall first obtain written verification from the county Extension Agent that the higher yield goal is reasonable.

21. If agricultural practice involves double cropping, the sludge application must be split in accordance with the nitrogen (PAN) requirements of each respective crop.

22. Following application or incorporation of biosolids that have undergone Class II treatment to achieve Class B pathogen control public access and crop management shall be restricted as follows:
    a. access to any site with a high potential for contact with the ground surface (public use) by the general public shall be controlled for a minimum time period of one year,
    b. access to agricultural sites and other sites with a low potential for public exposure shall be controlled for 30 days,
    c. food crops with harvested parts that touch the biosolids/soil mixture and are not totally above the land surface shall not be harvested for 14 months,
    d. food crops with harvested parts below the surface of the land shall not be harvested for 20 months following application, when the biosolids remain on the land surface for four months or longer prior to incorporation into the soil,
    e. food crops with subsurface harvested parts shall not be harvested for 38 months following application, when the biosolids remain on the land surface less than four months prior to incorporation,

f. feeding of harvested crops to animals shall not take place for a total of one month following surface application (two months for lactating dairy livestock),
g. grazing by animals whose products will or will not be consumed by humans is prevented for at least 30 days (60 days for lactating dairy livestock), and
h. harvesting turf grass for placement on land with a high potential for public exposure or a lawn is prevented for 12 months.

23. Sludge shall be direct injected or incorporated (mixed within the normal plow layer) within 48 hours if applied on sites with less than 60% uniform soil coverage by crop residue, stalks, vines, stubble, or other vegetation within any portion of the permitted site or if applied to areas subject to frequent flooding as defined by soil survey information.

24. Compliance with VPA Biosolids Program
Land application activities shall comply with the operational requirements of Part IX: Biosolids Program of the VPA Permit Regulation 9VAC25-32 (Sections 310 through 760) in effect as of the effective date of this permit.

25. Sludge may be stored only during periods when field operations are not possible due to inclement weather. The storage facility shall be emptied as soon as possible each Spring but in no case later than July 1st.

26. Sludge shall not be land applied to soils where the water table is less than 18 inches. For all soils with a seasonal high water table of less than 18 inches, site specific soil borings shall be required prior to any land application of sludge during the months in which the water table is commonly high as defined by the NRCS Soil Survey. The soil borings shall be performed no more than 7 days prior to land application site activities and shall be conducted over the entire land application site area(s) restricted by the seasonal high water table. If based on the soil borings in those areas, the water table is less than 18 inches, no sludge shall be applied; if 18 inches or greater, sludge application may occur at the permitted application rates. The signed soil boring logs shall be submitted with the monthly reports.

The following land application sites require soil borings during the high water table months prior to land application of sludge:

Field Number	Net Acres	High Water Table Period
4	73	December – May
6	31	January – March
13	24	November – May
15	29	December – May

27. The permittee shall provide written notification to the chief executive officer or designee for the local government where the site is located at least 100 days prior to commencing land application of biosolids at each permitted site. The notice shall contain the following information:
a. The name, address and telephone number of the permit holder, including the name of a representative knowledgeable of the permit;
b. Identification by tax map number and farm service agency (FSA) farm tract number of parcels on which land application is to take place;
c. A map indicating haul routes to each site where land application is to take place;
d. The name or title, and telephone number of at least one individual designated by the permit holder to respond to questions and complaints related to the land application project;
e. The approximate dates on which land application is to begin and end at the site;
f. The name and telephone number of the person or persons at the Virginia Department of Health to be contacted in connection with the permit; and

g. The name, address, and telephone number of the wastewater treatment facility, or facilities, from which the biosolids will originate, including the name or title of a representative of the treatment facility that is knowledgeable about the land application operation.

This requirement may be satisfied by providing a list of all available permitted sites in the locality at least 100 days prior to commencing the application at any site on the list. If the site is located in more than one county, the notice shall be provided to all jurisdictions where the site is located.

28. Within 24 hours of receiving notification of a complaint, the permittee shall commence investigation of said complaint and shall confirm receipt of a complaint by phone, email or facsimile to:
    a. the Department of Environmental Quality, Piedmont Regional Office
    b. the chief executive officer or designee for the local government of the jurisdiction in which the complaint originates, and
    c. the owner of the treatment facility from which the biosolids originated

    Complaints and responses thereto shall be documented by the permittee and submitted to the DEQ Piedmont Regional Office with monthly land application reports required in Part I.F.6 and copied to the chief executive officer or designee for the local government and the owner of the treatment facility from which the biosolids originated.

29. The permittee shall be responsible for the prompt cleanup and removal of biosolids spilled during transport to the land application site or to or from a storage facility. The operations manual shall include best management practices for the prevention of spills during transport and for the cleanup and removal of spills. The permittee shall ensure that its personnel, subcontractors or the drivers of vehicles transporting biosolids for land application shall be properly trained in procedures for spill removal and cleanup.

30. The permittee shall take appropriate steps to prevent drag-out and track-out of dirt and debris or biosolids from land application sites onto public roads. Where material is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly as soon as practicable, but no later than the end of each day.

31. The permittee shall promptly report offsite spills to the DEQ, the Virginia Department of Health, the chief executive officer or designee for the local government and the owner of the facility generating the biosolids. The report shall be made verbally as soon as possible, but no later than 24 hours after the discovery of the spill. After business hours notification may be provided by voicemail, facsimile or email. A written report, which shall include a description of measures taken in response to the spill, shall be submitted by the permit holder to the DEQ Piedmont Regional Office, the Virginia Department of Health, the chief executive officer or designee for the local government and the owner of the facility generating the biosolids within five working days of the spill. The report may be sent by first class mail, facsimile or email, or it may be hand delivered.

32. The owner shall notify the Department of Environmental Quality, Piedmont Regional Office upon implementation of any emergency storage. Approval of such storage and subsequent processing of the sludge and supernatant will be considered as a contingency plan integrated into the sludge management plan. Only emergency storage shall be used for storage of unstabilized sludges. Design and implementation of facilities used for emergency storage shall not result in water quality, public health or nuisance problems.

33. The owner shall notify the Department of Environmental Quality, Piedmont Regional Office whenever it is necessary to implement temporary storage. Temporary storage may be utilized at the land application site due to unforeseen climatic factors that preclude application of sludge (either offloaded at the site or in transport to the site) to permitted sites within the same working day. Temporary storage is not to be used as a substitute for routine storage and is restricted as follows:
    a. Sludge stored at the site shall be land applied prior to additional offloading of sludge at the same site;
    b. The owner shall be restricted to storing a daily maximum amount of 100 wet tons per operational site;

c. The stored sludge shall be land applied within 30 days from the initiation of storage or moved to a routine sludge facility;
d. Approval of plans for temporary storage will be considered as part of the overall sludge management plan;
e. Temporary storage shall not occur in areas prone to flooding at a 25-year or less frequency interval;
f. A synthetic liner shall be required for placement under and over sludge stored in this manner with one exception: where sludge is stockpiled for less than seven days, a liner placed under the stored sludge is not required. Surface water diversions and other best management provisions (BMP) should be utilized as appropriate; and
g. Temporary storage shall not result in water quality, public health or nuisance problems.

34. Only biosolids suitable for land application (Class A or B biosolids) shall be placed into permitted routine storage facilities.

35. When biosolids containing lime or other alkaline additives at 10% or more of dry solid weight are land applied, the soil pH must be properly tested and recorded prior to land application.

36. The application rate of all application equipment shall be measured once per quarter and every effort shall be made to ensure uniform application of biosolids within sites in accordance with approved maximum design loading rates.

37. Evidence of financial responsibility, which may include liability insurance, meeting the requirements herein shall be maintained by the permit holder at all times that it is authorized to transport, store or land apply biosolids in Virginia. The permit holder shall immediately notify the Department of Environmental Quality, Piedmont Regional Office in the event of any lapse or cancellation of such financial resources, including insurance coverage, as required by this section.

38. Class B microbiological standards shall be achieved at the time the biosolids are removed and transported for land application in accordance with the management practices specified.

39. For land application sites not identified in the approved Land Application Plan, the permittee shall submit the site specific information including site plan, soil map, etc., as outlined in the VPDES Sewage Sludge Permit Application Form Section C.12, and a non-hazardous declaration statement. This information shall be submitted to the regional office of the Department of Environmental Quality 90 days prior to commencing the sludge application. The Board shall notify persons residing on property bordering such site and receive written comments from those persons for a period not to exceed 30 days. Based upon the written comments, the DEQ shall determine whether additional site-specific requirements should be included in the authorization for land application at the site.

Attachment A-1

Table I: Recommended Plant Available Nitrogen (PAN) Application Rates in pounds of Nitrogen (N) per acre for Various Non-Irrigated Crops[1]

Crop	Soil Productivity Group								
	I		II		III		IV		V
	A	B	A	B	A	B	A	B	
	Lbs N/acre								
Corn grain or silage	160 to 180	150 to 170	140 to 160	130 to 150	120 to 140	110 to 130	100 to 120	85 to 105	65 to 85
Grain sorghum	140	130	120	110	100	95	90		80
Full season Soybeans [2]	160 to 180	150 to 170	140 to 160	130 to 150	120 to 140	110 to 130	100 to 120	85 to 105	65 to 85
Canola [3]	100		90		80		60		60
Wheat	100		90		80		60		60
Barley	90		80		80		60		60
Rye	75		75		75		75		75
Oats	80		80		80		60		60
Tallgrass Hay [4]	250		250		200		160		160
Bermudagrass Hay	300		300		260		210		210
Pasture [5] Fescue/Orchardgrass	120		120		100		80		80
Bermudagrass Pasture	200		200		160		120		120
Alfalfa	300		300		210		150		150
Sudangrass, sudansorghum, millet [6]	70		70		70		70		70
Stockpiled tall fescue (summer application by August 31)	90		90		90		60		60

Notes:

(1) For proposed use of crops or PAN rates (lbs/ac) not included in the tables, adequate yield and PAN data are to be submitted for staff approval prior to land application.

(2) For double crop or late beans planted after 6/21, (of any year,) allowable PAN rates are the lowest of the listed values, as rounded to nearest factor of ten.

(3) For fall applications, may sidedress up to 60 lbs fertilizer N/ac in late February before spring growth begins.

(4) Apply listed PAN rate when application occurs between 3/1 and 9/30 in any year and apply only one-half of listed PAN rates if application will occur between 10/1 of any year and 2/28 of the following year, with remaining PAN applied after 3/1 of that following year.

(5) For frequent applications apply 60 lbs PAN/ac per year. Following infrequent application rate, subsequent frequent applications should be adjusted on a case-by-case basis, accounting for residual from other wastes and crops.

(6) Sudangrass, sudan-sorghrum and pearl millet may receive a PAN rate of 120 lbs/ac if the application occurs between 3/1 and 6/1 of any year and two cuttings are to be made, weather permitting. For Foxtail or German Millet, cut only once, application will be limited to a PAN rate of 70 LBS/ac.

Attachment A-2

Table II: Estimated Yields in Bushels (bu) or Tons (T) per acre (ac) of Various Non-Irrigated Crops for identified Soil Productivity Groups

Crop	Soil Productivity Group								
	I		II		III		IV		V
	A	B	A	B	A	B	A	B	
Corn grain (bu/ac)	160	150	140	130	120	110	100	85	65
Silage (T/ac)	21	20	19	18	17	16	15	13	10
Grain sorghum (bu/ac)	140	130	120	110	100	90	90		80
Soybeans (bu/ac)									
Early Season	50	45	40	40	35		25		20
Late Season (1)	40	34	34	30	25		18		15
Canola (2)	UNDETERMINED AT THIS TIME								
Wheat (bu/ac)									
Standard	64		56		48		40		24
Intensive	80		70		60		50		30
Barley (bu/ac)									
Standard	100		70		60		50		30
Intensive	115		88		75		63		38
Oats	80		80		80		60		60
Tallgrass Hay (T/ac)	>4		3.5-4	3-3.5	<3		NA		NA
Bermudagrass Hay (T/ac)	>6		4-6		<4		NA		NA
Alfalfa (T/ac)	>6		4-6		<4		NA		NA

Notes:
(1) Late season beans would be planted on or after 6/21 of that year.

(2) Sufficient Yield Data not currently available.

Attachment A-3

Table III: Residual Plant Available Nitrogen (PAN) remaining from growth of various Legumes during the previous year [1]

Crop	%Stand	Yield Description	Residual PAN (lb/ac)
Alfalfa	50-75	Good (>4T/ac)	90
	25-49	Fair (3-4T/ac)	70
	<25	Poor (<3T/ac)	50
Red Clover	>50	Good (>3T/ac)	80
	25-49	Fair (2-3T/ac)	60
	<25	Poor (<2T/ac)	40
Hairy Vetch	80-100	Good	100
	50-79	Fair	75
	<50	Poor	50
Peanuts			45
Soybeans			20 [2]

Notes:
(1) The Residual PAN values must be subtracted from the recommended PAN rates to determine sludge application rates following growth of Legume Crops the previous year.

(2) Where yield data is available, utilize 0.5 pounds per bushel.

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.

2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.

3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. Records

1. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) and time(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

   DEQ - Piedmont Regional Office
   4949-A Cox Road
   Glen Allen, VA 23060

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved, or specified by the Department.

3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.

4. Calculations for all limits which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or

2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F 1; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F 1, shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;

2. The cause of the discharge;

3. The date on which the discharge occurred;

4. The length of time that the discharge continued;

5. The volume of the discharge;

6. If the discharge is continuing, how long it is expected to continue;

7. If the discharge is continuing, what the expected total volume of the discharge will be; and

8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit. Discharges reportable to the Department under

the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;

2. Breakdown of processing or accessory equipment;

3. Failure or taking out of service some or all of the treatment works; and

4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
   a. Any unanticipated bypass; and
   b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within 5 days and shall contain:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I. if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II I.1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I.2.

NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the Department's Regional Office at (804) 527-5020 or fax (804) 527-5106. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
   (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
   (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements

1. Applications. All permit applications shall be signed as follows:
   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulation; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

   c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part II K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

c. The written authorization is submitted to the Department.

3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Parts II K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II U), and "upset" (Part II V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate licensed operator staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of Solids or Sludges

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limits to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II U 2 and U 3.

2. Notice
   a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
   b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.
   a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(3) The permittee submitted notices as required under Part II U 2.

b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II U 3 a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limits if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
   a. An upset occurred and that the permittee can identify the cause(s) of the upset;
   b. The permitted facility was at the time being properly operated; and
   c. The permittee submitted notice of the upset as required in Part II I 2.
   d. The permittee complied with any remedial measures required under Part II S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection time unreasonable during an emergency.

X. Permit Actions

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of Permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.

2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:
   a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
   b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
   c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.